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Preliminary Amendment

In the Claims

33 21

Please amend the claims to the present application as set forth below. A detailed listing of all claims has been provided. A status identifier is provided for each claim in a parenthetical expression following each claim number.

Claim 1 is currently amended.

Claims 2—36 are as originally filed.

Accordingly, claims 1—36 are pending.

1. (Currently amended.) A method of metering execution of code, comprising:  
receiving a call requesting execution of a protected service within a first runtime area;  
requesting permission for the execution;  
analyzing the request for permission; and  
basing status of the permission on the analysis.
2. (Original.) The method of claim 1, wherein the analysis is made within a second runtime area separate from the first runtime area.
3. (Original.) The method of claim 2, wherein the first and second runtime areas reside in different partitions of memory.

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- 1 4. (Original.) The method of claim 2, wherein the first runtime area is located  
2 at a first computing device and the second runtime area is located at a  
3 second computing device.
- 4
- 5 5. (Original.) The method of claim 1, wherein analyzing the request  
6 comprises using a contract and meter data as inputs.
- 7
- 8 6. (Original.) The method of claim 5, additionally comprising updating the  
9 meter data to reflect the analysis.
- 10
- 11 7. (Original.) The method of claim 1, wherein requesting permission  
12 comprises opening a secure connection between the protected service and a  
13 metering engine configured to perform the analysis.
- 14
- 15 8. (Original.) The method of claim 1, wherein requesting permission  
16 comprises sending an encrypted message from the protected service in the  
17 first runtime area to a metering engine within the second runtime area.
- 18
- 19 9. (Original.) The method of claim 1, wherein the permission was given,  
20 additionally comprising:  
21 executing the protected service; and  
22 returning results of the execution to an application that initiated the call.
- 23
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10. (Original.) The method of claim 1, wherein the permission was not given, additionally comprising returning notice of failure to execute the protected service to an application that initiated the call.
11. (Original.) A processor-readable medium comprising processor-executable instructions for metering execution of code, the processor-executable instructions comprising instructions for:
- receiving a request for execution of a protected service;
- requesting authorization to execute the protected service, wherein the authorization request is made from the protected service to a metering engine; and
- analyzing, with the metering engine, a contract in view of meter data to determine if the authorization request to use the protected service by an application should be allowed.
12. (Original.) The processor-readable medium as recited in claim 11, wherein the metering engine operates within a runtime area that is separate from a runtime area within which the protected service operates.

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- 1 13. (Original.) The processor-readable medium as recited in claim 11, wherein  
2 the analyzing comprises instructions for:  
3 analyzing the contract using the meter data and identity of the protected  
4 service as input to an analysis; and  
5 updating the meter data to reflect the analysis.  
6
- 7 14. (Original.) The processor-readable medium as recited in claim 11, wherein  
8 requesting authorization comprises instructions for opening a secure  
9 connection between the protected service and the metering engine.  
10
- 11 15. (Original.) The processor-readable medium as recited in claim 11, wherein  
12 the metering of code execution is performed in a managed code  
13 environment.  
14
- 15 16. (Original.) The processor-readable medium as recited in claim 11,  
16 additionally comprising, where the authorization request was allowed,  
17 instructions for:  
18 executing the protected service; and  
19 returning results of the execution to the application.  
20
- 21 17. (Original.) The processor-readable medium as recited in claim 11,  
22 additionally comprising, where the authorization request was not allowed,  
23 instructions for returning notice of failure to execute to the application.  
24  
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1 18. (Original.) The processor-readable medium as recited in claim 11,  
2 comprising further instructions for protecting communications between the  
3 protected service and the metering engine with cryptography.

4  
5 19. (Original.) A code-executing device, comprising:  
6 first and second runtime areas with a secure communication channel  
7 between them;  
8 a protected service configured to receive a request from an application for  
9 execution of the protected service within the first runtime area; and  
10 a metering engine, configured to receive the request and to operate within  
11 the second runtime area and to return an allowance code or a  
12 rejection code in response to the request by applying rules to meter  
13 data.

14  
15 20. (Original.) The code-executing device of claim 19, wherein the metering  
16 engine comprises:  
17 an enforcement engine, configured for secure communication with the  
18 protected service;  
19 a service contract, configured to supply the rules governing operation of the  
20 protected service, to the enforcement engine; and  
21 a secure store, within which the meter data is contained, wherein the secure  
22 store is configured to supply, to the enforcement engine, historical  
23 data reflecting past operation of the protected service.  
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- 1 21. (Original.) The code-executing device of claim 19, wherein the metering  
2 engine is configured to:  
3 use identity of the protected service and data from a secure store of meter  
4 data as input to an analysis providing return of the allowance code or  
5 the rejection code; and  
6 update the secure store of meter data to reflect the analysis.  
7
- 8 22. (Original.) The code-executing device of claim 19, wherein the code-  
9 executing device is a cellular telephone.  
10
- 11 23. (Original.) The code-executing device of claim 19, wherein the code-  
12 executing device is configured for use within a managed code environment.  
13
- 14 24. (Original.) The code-executing device of claim 19, wherein the code-  
15 executing device is a compound device, and wherein the protected service  
16 is contained on a first portion of the compound device and the metering  
17 engine is contained on a second portion of the compound device, and  
18 wherein the first portion of the compound device is remotely located from  
19 the second portion of the compound device.  
20
- 21 25. (Original.) The code-executing device of claim 19, additionally comprising  
22 a library of protected services, within which the protected service is  
23 contained.  
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- 1 26. (Original.) The code-executing device of claim 19, additionally comprising a library of applications, within which the application is contained.
- 2
- 3
- 4 27. (Original.) A managed code environment, comprising:
- 5 an application configured to consume services from a library of protected
- 6 services;
- 7 a protected service, within the library of protected services, configured to
- 8 receive a request from the application for execution; and
- 9 a metering engine, configured to return of an allowance code or a rejection
- 10 code to the request based on rules governing operation of the
- 11 protected service.
- 12
- 13 28. (Original.) The managed code environment of claim 27, wherein the
- 14 protected service and the metering engine operate within different runtime
- 15 areas.
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29. (Original.) The managed code environment of claim 27, wherein the metering engine comprises:

an enforcement engine, configured for secure communication with the protected service;

a service contract, configured to supply the rules governing operation of the protected service to the enforcement engine; and

a secure store of metered data, configured to supply historical data reflecting past operation of the protected service and the application to the enforcement engine.

30. (Original.) The managed code environment of claim 27, wherein the metering engine comprises:

a service contract containing the rules governing operation of the protected service;

a secure store of meter data; and

an enforcement engine configured to return of the allowance code or the rejection code by:

analyzing the service contract using identity of the application, identity of the protected service, and data from the secure store of meter data as input to the analysis; and

updating the secure store of meter data to reflect the analysis.



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- 1 31. (Original.) A code-executing device for metering execution of code, the code-executing device  
2 code-executing device comprising:  
3 means for calling a protected service from an application;  
4 means for calling a metering engine from the protected service; and  
5 means for analyzing a contract to determine whether to allow or prohibit  
6 use of the protected service by the application.  
7
- 8 32. (Original.) The code-executing device as recited in claim 31, additionally  
9 comprising, where allowance was determined to be appropriate:  
10 means, defined in the protective service, for executing functionality  
11 requested by the application; and  
12 means for returning results of the execution to the application.  
13
- 14 33. (Original.) The code-executing device as recited in claim 31, additionally  
15 comprising, where rejection was determined to be appropriate, means for  
16 returning notice of the rejection to the application.  
17
- 18 34. (Original.) The code-executing device as recited in claim 31, wherein the  
19 means for analyzing the contract comprises:  
20 means for analyzing the contract using identity of the application, identity  
21 of the protected service, rules within the contract, and data from a  
22 secure store of meter data as input to the analysis; and  
23 means for updating the secure store of meter data to reflect the analysis.  
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- 1 35. (Original.) The code-executing device as recited in claim 31, wherein the means for  
2 means for calling the metering engine comprises:  
3 means for opening a secure connection between the protected service and  
4 the metering engine; and  
5 means for operating the protected service and the metering engine within  
6 distinct runtime areas.  
7  
8 36. (Original.) The code-executing device as recited in claim 31, wherein the  
9 metering is performed in a managed code environment.  
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